

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

Research Administration Use Only

| | | | |
|--|-------------------------------|------------------------------------|----------------------|
| | REQUISITION NUMBER 1769 | DUE DATE 6/29/2015 | TIME DUE Noon EST |
| MDOT PROJECT MANAGER Mary Bramble/ Michael Townley | JOB NUMBER (JN) TBD | CONTROL SECTION (CS) n/a | |

DESCRIPTION

Evaluating Road Delineation Practices in Michigan

| Check all items to be included in RFP | | | Provide only checked items below in proposal |
|---|---|--|---|
| Check the appropriate Tier in the box below | | | |
| <div><input type="checkbox"/></div> <div>TIER I</div> <div>(\$50,000-\$150,999)</div> | <div><input checked="" type="checkbox"/></div> <div>TIER II</div> <div>(\$150,000- \$1,000,000)</div> | <div><input type="checkbox"/></div> <div>TIER III</div> <div>(>\$1,000,000)</div> | |
| <div><input type="checkbox"/></div> | <div><input checked="" type="checkbox"/></div> | <div><input type="checkbox"/></div> | Understanding of Service |
| <div><input type="checkbox"/></div> | <div><input checked="" type="checkbox"/></div> | <div><input type="checkbox"/></div> | Past Performance |
| <div><input type="checkbox"/></div> | <div><input checked="" type="checkbox"/></div> | <div><input type="checkbox"/></div> | Qualifications of Team |
| <div><input type="checkbox"/></div> | <div><input checked="" type="checkbox"/></div> | <div><input type="checkbox"/></div> | Quality Assurance/Quality Control |
| <div><input type="checkbox"/></div> | <div><input checked="" type="checkbox"/></div> | <div><input type="checkbox"/></div> | Location: The percentage of work performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activities, then location should be scored using the distance from the consultant office to the on-site inspection or survey activity. |
| N/A | N/A | <div><input type="checkbox"/></div> | Presentation |
| N/A | N/A | <div><input type="checkbox"/></div> | Technical Proposal (if Presentation is required) |

The prime consultant/vendor is responsible for the successful completion of the service and is expected to perform at least 40 percent of the services, by dollar value. The basis of payment is Actual Costs for Universities and Actual Costs plus Fixed Fee for Consultants as defined in standard MDOT contracts.

If your organization is interested in providing services, please indicate your interest by submitting a proposal following the **research guidelines** near the top of MDOT's Request for Proposals Web page at http://www.michigan.gov/mdot/0,1607,7-151-9625_32842-__00.html.

RFP SPECIFIC INFORMATION

Problem Title: Evaluating Road Delineation Practices in Michigan

OR Number: OR14-017

This is Best Value Selection which means the budget amount submitted with the proposal is a component of the proposal score, not the determining factor of the selection.

PROPOSAL SUBMITTAL INFORMATION

PROPOSAL AND BID SHEET EMAIL ADDRESS –

mdot-rfp-response@michigan.gov with a CC to
mdot-research@michigan.gov

GENERAL INFORMATION

Any questions relative to the Research Problem Statement must be submitted by e-mail to:

mdot-research@michigan.gov. Questions must be received by 4 business days prior to the RFP due date at 5:00 p.m. EST. All questions and answers will be placed on the MDOT RFP Web site as soon as possible after receipt of the questions and at least three (3) days prior to the due date listed above. The names of organizations submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal.

MDOT AND RESEARCH FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION:

5100D- Request for Proposal Cover Sheet

Schedule of Research Activities Form- Appendix B

Deliverables Table- Appendix A

5100J- Consultant Data and Presignature sheet is required for signatory on this proposal

Research Proposal Budget Form Worksheet Appendix C (Universities)

Or

Budget Exhibits required in [Priced Proposal Guidelines](#) (Consultants)

MANDATORY ELECTRONIC SUBMITTAL

Proposals submitted for this project must be submitted electronically.

The following are Requirements for Electronic Submittals:

- Proposals must be prepared using the most current Research guidelines found at the top of the page- [MDOT – Research Proposal Guidelines](#).
- The proposal must be bookmarked to clearly identify the proposal sections (See Below)
- For any section not required per the RFP, the bookmark must be edited to include “N/A” after the bookmark title.
- Proposals must be assembled and saved as a single PDF file
- PDF file must be 5 megabytes or smaller
- PDF file must be submitted via e-mail to MDOT-RFP-Response@michigan.gov with a cc to mdot-research@michigan.gov
- MDOT’s requisition number and company name must be included in the subject line of the e-mail. The PDF shall be named using the following format:
 - **Requisition#XXX_Company Name.PDF**
- MDOT will not accept multiple submittals
- Proposals must be *received* by MDOT on or before the due date and time specified in each RFP

If the submittals do not comply with the requirements, they may be determined unresponsive.

The Proposer will receive an e-mail reply/notification from MDOT when the proposal is received. Please retain a copy of this e-mail as proof that the proposal was received on time. Proposers are responsible for ensuring the MDOT receives the proposal on time.

****Contact Contract Services Division immediately at 517-373-4680 if you do not get an auto response****

Required Bookmarking Format for RESEARCH ADMINISTRATION PROPOSALS ONLY:

1. Request for Proposal Cover Sheet Form 5100D
 - A. Consultant Data and Signature Sheet, Form 5100J (if applicable)
2. Understanding of Service
3. Qualifications of Team
4. Past Performance
5. Quality Assurance / Quality Control Plan
6. Location
7. Pricing Documents/Bid Sheet (if applicable)
8. Appendices

NOTIFICATION E-VERIFY REQUIREMENTS

E-Verify is an Internet based system that allows an employer, using information reported on an employee's Form I-9, Employment Eligibility Verification, to determine the eligibility of that employee to work in the United States. There is no charge to employers to use E-Verify. The E-Verify system is operated by the Department of Homeland Security (DHS) in partnership with the Social Security Administration. E-Verify is available in Spanish.

The State of Michigan is requiring, under Public Act 200 of 2012, Section 381, that as a condition of each contract or subcontract for construction, maintenance, or engineering services that the pre-qualified contractor or subcontractor agree to use the E-Verify system to verify that all persons hired during the contract term by the contractor or subcontractor are legally present and authorized to work in the United States.

Information on registration for and use of the E-Verify program can be obtained via the Internet at the DHS Web site: <http://www.dhs.gov/E-Verify>.

The documentation supporting the usage of the E-Verify system must be maintained by each consultant and be made available to MDOT upon request.

It is the responsibility of the prime consultant to include the E-Verify requirement documented in this NOTIFICATION in all tiers of subcontracts.

9/13/12

Michigan Department of Transportation

SCOPE OF SERVICE FOR RESEARCH SERVICES

TITLE: Evaluating Road Delineation Practices in Michigan
OR#:14-017

LOCATION: Nationwide

WORK DESCRIPTION: Research on Evaluating Road Delineation Practices in Michigan

ANTICIPATED START DATE: October 1, 2015

ANTICIPATED COMPLETION DATE: April 1, 2017

MDOT RESEARCH PROJECT ADMINISTRATION MANAGER:

Michael Townley, P.E.
8885 Ricks Road
Lansing, Michigan 48917
E-MAIL: mdot-research@michigan.gov

GENERAL INFORMATION:

1. PROBLEM TO ADDRESS

MDOT spends millions of dollars a year installing and maintaining pavement markings, rumble strips and delineators as part of its delineation program. Installation of pavement markings, rumble strips, and delineators is done via construction contract with a variety of materials. Pavement marking maintenance is done via an annual restriping program using two products; waterborne paint (WB) and sprayable thermoplastic (STP). These two products are considered to be '1 year' products. The majority of pavement markings on the state trunkline system are WB and STP.

MDOT needs to determine if the current system is appropriate or if a new process should be instituted. Several neighboring states with the same snow plow conditions use different styles of delineators, and only use durable pavement markings (non-recessed epoxy) in their construction projects and then restripe after a certain number of years with their own paint crews.

MDOT would like to investigate the service life for various types of pavement markings and delineators on different pavement materials and conditions, and different roadway configurations, compare different practices between states and determine the cost/benefit of the different practices.

Does the delivery of delineation components (Contractors vs State forces) have an impact? What is the end service life for the various types of delineation for roadways? How does the retro reflectivity (the visual benefit for drivers at night) and presence of delineation in Michigan compare to other states after 1, 2, 5 years?

Define the goal(s) for the various parts of the delineation program and the system by which this can be accomplished. Verify any change in the delineation process is compatible with the anticipated Manual on Uniform Traffic Control Devices (MUTCD) retro reflectivity requirements.

2. RESEARCH OBJECTIVES

Recommend a cost efficient asset-managed delineation system on MDOT roadways that provides positive guidance to keep motorists safely in their lane during normal driving conditions and strives to deliver delineation in severe weather conditions. Delineation system components consist of pavement markings, rumble strips, and delineators.

3. URGENCY AND IMPLEMENTATION BENEFIT TO MDOT

The results of the research will be used to execute changes to the Department's delineation program. Through this research MDOT may obtain a definitive and systematic approach to installing and maintaining pavement markings and delineators with possibly measureable results. Cost saving or increases in safety may result from implementing the recommendations from this study.

4. RISKS OR OBSTACLES TO RESEARCH

If other states do not respond to the survey, our pool of information is too small. The Principal Investigator directly contact other states. Developing and running a human factors research project is too unwieldy. A review of previous human factors tests ran elsewhere may provide acceptable data for this project.

5. DESIRED QUALIFICATIONS IN AN INVESTIGATOR(S)

The ideal team would consist of a Principal Investigator and other employees (grad students) with experience in pavement markings and delineators including retro reflectivity practices, field installation, and human factors.

A member with at least one college series of statistics courses and working experience in statistical analyses is required.

CONSULTANT RESPONSIBILITIES:

1. Identify the components:
 - a. Identify roadway delineation systems including both short and long distance viewing delineation for all portions of the roadway except intersections.
 - i. At a minimum short range delineation should include longitudinal line and special pavement markings and rumble strips.

- ii. At a minimum, long range delineation should include mainline lighting, reflective delineators, and reflective sign posts for horizontal alignment signs.
- 2. Identify application influencing factors:
 - a. Identify the most critical design factors influencing delineation component application/installation such as
 - i. Geometry
 - ii. Lighting
 - iii. Climate (Wet and dry, snow and ice cover, and snow plowing conditions)
 - iv. Speed
 - v. Traffic conditions (ADT)
 - vi. Current pavement strategies (including coordination with pavement improvements and maintenance)
 - vii. Roadway functional classification
 - viii. Federal requirements
 - ix. Needs of the driver determined by existing human factors research
- 3. Review literature and survey states:
 - b. Conduct a literature search and synthesis to understand the state of knowledge concerning roadway delineation components and influential design factors identified in items 1 and 2.
 - c. Document the north central United States transportation departments' design guides, policies, and procedures.
- 4. Collect Michigan specific data
 - a. Collect information on MDOT's existing delineation program and guidelines.
 - b. Collect information on MDOT's roadway delineation assets
- 5. Alternative Strategy Analysis:
 - a. Conduct a cost benefit and life cycle cost analysis of several freeway and non-freeway statewide roadway delineation deployment alternatives. Include both long term and short term strategies.
- 6. Recommend a delineation strategy to meet the Department's roadway delineation goal: "Deliver a cost efficient asset-managed delineation system on MDOT roadways that provides positive guidance to keep motorists safely in their lane during normal driving conditions and strives to deliver delineation in severe weather conditions."
 - a. Recommend a cost effective alternative that meets the delineation goal
 - b. Develop design standards that can be used to implement it.
 - c. Identify Policy that is needed to implement and support the strategy
 - d. Consider how to implement the recommendations using performance based techniques and identifying challenges.

Failure of any of the above will be found in noncompliance with the contract.

DELIVERABLES:

A report detailing best pavement marking and delineator practices for a snowplow state including initial materials, maintenance processes, product and application verification, cost to implement, and any measurable links to safety that can assist the Department in meeting its roadway delineation goal.

MDOT RESPONSIBILITIES:

MDOT will provide current rumble strip, longitudinal line pavement marking, and special pavement marking asset inventories, plus access to the keepers of that information. MDOT will also provide available product, cost, and retro reflectivity data. Delineator inventories are not available. Freeway lighting locations will be provided by MDOT (interchange lighting will not be accounted for as this is too short of a distance to change pavement delineation strategies).

COORDINATION PROCEDURES

Work will be completed in compliance with the Research Implementation Manual

CONSULTANT PAYMENT

The basis of payment is Actual Costs for Universities and Actual Costs plus Fixed Fee for Consultants as defined in standard MDOT contracts.

Compensation for this project shall be on an **actual cost** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, and subconsultant costs. This basis of payment is typically used for non-profits or universities.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

All billings for services must be directed to the Department and follow the current Research Implementation Manual. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418. MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848. MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

Actual Cost Plus Fixed Fee:

Compensation for this project shall be on an **actual cost plus fixed fee** basis. This basis of payment typically includes an estimate of labor hours by classification or employee, hourly labor rates, applied overhead, other direct costs, subconsultant costs, and applied fixed fee. The fixed fee for profit allowed for this project is 11.0% of the cost of direct labor and overhead.

All billings for services must be directed to the Department and follow the current guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's website. This document contains instructions and forms that must be followed and used for billing. Payment may be delayed or decreased if the instructions are not followed.

Payment to the Consultant for services rendered shall not exceed the maximum amount unless an increase is approved in accordance with the contract with the Consultant. Typically, billings must be submitted within 60 days after the completion of services for the current billing. The final billing must be received within 60 days of the completion of services. Refer to your contract for your specific contract terms.

Direct expenses, if applicable, will not be paid in excess of that allowed by the Department for its own employees in accordance with the State of Michigan's Standardized Travel Regulations. Supporting documentation must be submitted with the billing for all eligible expenses on the project in accordance with the Reimbursement Guidelines. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project.

MDOT will reimburse the consultant for vehicle expenses and the costs of travel to and from project sites in accordance with MDOT's Travel and Vehicle Expense Reimbursement Guidelines, dated May

1, 2013. The guidelines can be found at

http://www.michigan.gov/documents/mdot/Final_Travel_Guidelines_05-01-13_420289_7.pdf?20130509082418.

MDOT's travel and vehicle expense reimbursement policies are intended primarily for construction engineering work. Reimbursement for travel to and from project sites and for vehicle expenses for all other types of work will be approved on a case by case basis.

MDOT will pay overtime in accordance with MDOT's Overtime Reimbursement Guidelines, dated May 1, 2013. The guidelines can be found at

http://www.michigan.gov/documents/mdot/Final_Overtime_Guidelines_05-01-13_420286_7.pdf?20130509081848.

MDOT's overtime reimbursement policies are intended primarily for construction engineering work. Overtime reimbursement for all other types of work will be approved on a case by case basis.

PROPOSAL INFORMATION AND SCORING

Formal proposals are required and shall include the information as outlined in these Guidelines. This section is the information required in the proposal that will be used to score the qualifications of each consultant's proposal. The section numbering correlates to the score sheet. Therefore, the consultant should format their proposals consistent with the outline provided.

1. UNDERSTANDING OF SERVICE: 40 POINTS

Describe understanding of the service intended to be proposed. This information is to be based on the scope of services.

Problem Statement and Background Summary- demonstrates good understanding of problem, looks objectively at problem, specifies problem limits and restricts scope appropriately, and cites relevant literature.

Research Plan- cites specific objectives clearly, technical approach responds to all written and implied requirements, difficult areas are identified and details to overcome are given, represents novel idea or technical approach, plan is feasible, and effort is consistent with scope of problem.

Products and Implementation- proposal clearly defines products to be delivered at completion, includes practical, realistic implementation plan.

MDOT Involvement- MDOT involvement is not excessive and is clearly defined and quantified.

2. QUALIFICATIONS OF TEAM: 30 POINTS –

Describe the structure of the project team including the roles of all key personnel and subcontractors. For each subcontractor describe role in service and include what percent of the task that the subcontractor is expected to provide. Provide résumés for each of the key staff of the prime and subcontractor.

Facilities- proposer has adequate access to equipment and/or laboratory required in study.

Staffing- personnel availability is clearly defined, shows a depth of qualified personnel, proposer has ability to manage a project of this size and sufficient resources to complete study, qualifications are directly related to the requirements of the project, plans for specific key personnel assignment included, and there is a reasonable balance between subcontractor and prime contractor.

Statistical Qualification- The required knowledge level for a research team in statistical analyses, if defined, will be in the RFP under the heading DESIRED QUALIFICATIONS IN AN INVESTIGATOR(S).

Proposals not documenting statistical training and experience levels required in the RFP may be classified as non-responsive.

3. RELEVANT PAST PERFORMANCE: 30 POINTS

The project manager will contact references and review relevant performance evaluations from the past 5 years.

Record of past accomplishment- proposer satisfactorily completed past projects, was cooperative and flexible, and ended past projects according to the original budget and time schedule.

4. QUALITY ASSURANCE/QUALITY CONTROL (QAQC) PLAN: 5 POINTS

The proposer provided an outline of a QA/QC process. The QA/QC Manager is experienced with MDOT standards and practices.

5. LOCATION: 5 POINTS

The percentage of work hours performed in Michigan will be used for all selections unless the project is for on-site inspection or survey activity. The combination of location and percentage of work performed in Michigan should not exceed 5 points.

| Percentage of Work To Be Done in Michigan Score | |
|---|---|
| 95% to 100% | 5 |
| 80% to 94% | 4 |
| 50% to 79% | 3 |
| 25% to 49% | 2 |
| 10% to 24% | 1 |
| Less than 10% | 0 |

6. PRICE: 40 POINTS

Cost score is based on the lowest cost proposed divided by the current proposer cost multiplied by 40. Lowest bid shall receive 40 points.

TOTAL POINTS: 150

| Research Proposal Budget Form Worksheet | | | | | | | | | | | |
|--|----------|---------|----------|---------|----------|---------|----------|---------|--------|--------|--------|
| Project Title | | | | | | | | | | | |
| Research Organization | | | | | | | | | | | |
| Date | | | | | | | | | | | |
| <div> <div></div> <div>FY1</div> <div>FY2</div> <div>FY3</div> <div>FY4</div> <div>TOTAL</div> </div> | | | | | | | | | | | |
| SALARIES & WAGES -- MUST COMPLY WITH OMB CIRCULAR A-21 Specify number of hours to be worked and hourly rate for each individual below: Examples of role of individual are Principal Investigator, Technician, Grad Student, etc. Annual wage increases must not exceed 2% | | | | | | | | | | | |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| (role of individual) | | | | | | | | | | | |
| Name of individual | | | | | | | | | | | |
| Enter FY | FY1 rate | FY1 hrs | FY2 rate | FY2 hrs | FY3 rate | FY3 hrs | FY4 rate | FY4 hrs | | | |
| rate & hrs | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |
| Sub-Total Salary & Wages | | | | | | | | | \$0.00 | \$0.00 | \$0.00 |

| FRINGE BENEFITS -- MUST COMPLY WITH OMB CIRCULAR A-21 | | | | | | | | | |
|---|-----|-----|-----|-----|--------|--------|--------|--------|--------|
| Indicate Employee, appropriate negotiated rate for each and description of who the rate applies to. (e.g. - Sam Smith, 25%, Summer Faculty. The rate is negotiated between the university and it's cognizant agency | | | | | | | | | |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Name | | | | | | | | | |
| (Rate Description) | | | | | | | | | |
| (% rate) | FY1 | FY2 | FY3 | FY4 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Sub-Total Fringe Benefits | | | | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| | | | | | | | | | |
| SUBCONTRACTOR -- MUST COMPLY WITH OMB CIRCULAR A-21 | | | | | | | | | |
| A copy of the subcontractor's budget must be attached. An MDOT approved subcontract is required for subcontractor costs in excess of \$25,000 prior to payment of invoices that contain subcontractor work. List all subcontractors on a separate line. | | | | | | | | | |
| Subcontractor Name & Amt. | | | | | | | | | \$0.00 |
| Subcontractor Name & Amt. | | | | | | | | | \$0.00 |
| Sub-Total Subcontractor | | | | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| | | | | | | | | | |
| TRAVEL -- MUST COMPLY WITH OMB CIRCULAR A-21 | | | | | | | | | |
| Must be in accordance with IDS contract requirements. | | | | | | | | | |
| In-State Travel (Destinations within Michigan) | | | | | | | | | |
| Provide a separate table itemizing costs. | | | | | | | | | \$0.00 |
| Out-of-State Travel (Prior approval required) | | | | | | | | | |
| Provide a separate table itemizing costs. | | | | | | | | | \$0.00 |
| Sub-Total Travel | | | | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| | | | | | | | | | |

SUPPLIES -- MUST COMPLY WITH OMB CIRCULAR A-21 (Few items not allowed are: computers, printers, monitors, fax machines, printer paper, toner cartridges, pens, pencils, legal pads, clips, rubber bands, post-it notes, books, notebooks, binders, folders, diskettes, postage stamps, chairs, office furniture, calendars, paper punches, business cards, staplers, waste cans, etc.)

Provide details if cost exceeds \$2,000. Individual line items in excess of \$1,000 require a detailed explanation regardless of total cost

| | | | | | | |
|---------------------------|--|--------|--------|--------|--------|--------|
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| Sub-Total Supplies | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |

CAPITAL EQUIPMENT -- MUST COMPLY WITH OMB CIRCULAR A-21 - Purchased specifically for this project

List items with a value in excess of \$500. Equipment in excess of \$5,000 requires prior approval.

| | | | | | | |
|----------------------------|--|--------|--------|--------|--------|--------|
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| Sub-Total Equipment | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |

OTHER EXPENSES -- MUST COMPLY WITH OMB CIRCULAR A-21 (Few items not allowed are: memberships in professional & scientific organizations, local

telephone lines, cell phones, etc.) Any project expense which does not fall into another category. Provide detailed explanation of the expense and applicable breakdown of costs (e.g. graduate student tuition).

| | | | | | | |
|---------------------------------|--|--------|--------|--------|--------|--------|
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| (Description) | | | | | | \$0.00 |
| Sub-Total Other Expenses | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |

Total Sub-Totals \$0.00 \$0.00 \$0.00 \$0.00 \$0.00

INDIRECT COSTS -- MUST COMPLY WITH OMB CIRCULAR A-21

Indirect cost rates are negotiated between the university and it's cognizant agency. Indicate the type of negotiated indirect rate used and the percentage (e.g. On Campus Research, 52%)

| | | | | | | | | | | |
|-----------------------------|-----|-------|-----|-----|--|--------|--------|--------|--------|--------|
| (Type) | | (%) | | | | | | | | |
| | FY1 | FY2 | FY3 | FY4 | | | | | | |
| Enter \$ Amt per FY | | | | | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Total Indirect Costs | | | | | | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |

| | | | | | |
|----------------------------------|--------|--------|--------|--------|--------|
| TOTAL PROJECT COSTS | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| UNIVERSITY MATCHING FUNDS | | | | | \$0.00 |
| TOTAL MDOT PROJECT COSTS | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |